

# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 666902-A-PCT/IPW/JCC	<b>FOR FURTHER ACTION</b>	see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.
International application No. PCT/US03/12768	International filing date ( <i>day/month/year</i> ) 23 April 2003 (23.04.2003)	(Earliest) Priority Date ( <i>day/month/year</i> ) 23 April 2002 (23.04.2002)
Applicant THE TRUSTEES OF COLUMBIA UNIVERSITY IN THE CITY OF NEW YORK		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 3 sheets.



It is also accompanied by a copy of each prior art document cited in this report.

**1. Basis of the Report**

- a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).
- b. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international search was carried out on the basis of the sequence listing:
- ☒ contained in the international application in written form.
- ☒ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.
2. ☐ Certain claims were found unsearchable (See Box I).
3. ☐ Unity of invention is lacking (See Box II).
4. With regard to the title,
- ☒ the text is approved as submitted by the applicant.
- ☐ the text has been established by this Authority to read as follows:
5. With regard to the abstract,
- ☒ the text is approved as submitted by the applicant.
- ☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.
6. The figure of the drawings to be published with the abstract is Figure No. \_\_\_\_\_
- ☐ as suggested by the applicant.
- ☐ because the applicant failed to suggest a figure.
- ☐ because this figure better characterizes the invention.
- ☒ None of the figures

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International application No.

PCT/US03/12768

<b>A. CLASSIFICATION OF SUBJECT MATTER</b> IPC(7) : C07H 21/00; A61K 48/00; C12Q 1/68 US CL : 514/44; 435/6, 325, 375; %36/23.1, 24.5 According to International Patent Classification (IPC) or to both national classification and IPC		
<b>B. FIELDS SEARCHED</b> Minimum documentation searched (classification system followed by classification symbols) U.S. : 514/44; 435/6, 325, 375; 536/23.1, 24.5 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) West, Biosis, CA, SciSearch, Embase, Medline		
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X, P --- A	1) FUTAMATSU, H., et al. Attenuation of experimental autoimmune myocarditis by blocking activated T cells through inducible costimulatory molecule pathway. Cardiovascular Research. July 2003, Vol 59. No.1 pages 95-104. Throughout	1, 63 ----- 1-90
Y, P --- A A Y	STENHOFF J. et al.. Vitamin K-Dependent Gas6 Activates ERK Kinase And Stimulates Growth Of Cardiac Fibroblasts. Biochemical and biophysical research communications, July 2004, Vol 319. No. 3, pages 871-8. GUPTA, S. et al. Myotrophin-B DNA Interaction In The Initiation Process Of Cardiac Hypertrophy. Biochimica et Biophysica Acta. 2002, Vol 1589. No. 3, pages 247-260. PIACENTINI L; et al. Endothelin-1 Stimulates Cardiac Fibroblast Proliferation Through Activation Of Protein Kinase C. Journal of molecular and cellular cardiology. April 2000, Vol 32. No. 4, pages 565-76.	1-3, 63 ----- 1-90 1-90 1-90
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex.		
* Special categories of cited documents: "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family		
Date of the actual completion of the international search 06 August 2004 (06.08.2004)		Date of mailing of the international search report 24 AUG 2004
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703) 872-9306		Authorized officer <i>Valerie Ad-Harris</i> J. D. Schultz, Ph.D. Telephone No. 571-272-1600

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## C. (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	OKUNO et al. Expressional Patterns Of Cytokines In A Murine Model Of Acute Myocarditis: Early Expression Of Cardiotrophin-1. Laboratory Investigation. March 2000, Vol. 80, No. 3, pp. 433-440..	1-90
Y	FEUCHT, M., VEGF Induces Cardiovascular Malformation And Embryonic Lethality. American Journal of Pathology 1997. Vol 151. No. 5, pages 1407-1416.	1-90